



## SEQUENCE LISTING

<110> Hawiger, Daniel  
Steinman, Ralph M.  
Nussenzweig, Michel C.

<120> Enhanced Antigen Delivery and Modulation  
of the Immune Response Therefrom

<130> RUJ-001CNCPRCE2

<140> 09/925,284  
<141> 2001-08-09

<150> 09/586,704  
<151> 2000-06-05

<150> 08/381,528  
<151> 1995-01-31

<160> 10

<170> FastSEQ for Windows Version 4.0

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acaggaac 68

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acatgatagg c 71

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ggccatctcg 70

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ggccgcctat catgtcctac cgtcataata cctgctgtta atctggagaa taccatagtc 60  
tgtgctacc 69

<210> 7  
<211> 30  
<212> PRT  
<213> Homo sapiens

<220>  
<223> carboxy terminal DEC-205

<400> 7  
Arg His Arg Leu His Leu Ala Gly Phe Ser Ser Val Arg Tyr Ala Gln  
1 5 10 15  
Gly Val Asn Glu Asp Glu Ile Met Leu Pro Ser Phe His Asp  
20 25 30

<210> 8  
<211> 25  
<212> PRT  
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<220>  
<223> amino terminal Dec-205

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Ser Glu Ser Ser Gly Asn Asp Pro Phe Thr Ile Val His Glu Asn Thr  
1 5 10 15  
Gly Lys Cys Ile Gln Pro Leu Phe Asp  
20 25

<210> 9

<211> 19  
<212> PRT  
<213> mus musculus

<220>  
<223> amino terminal DEC-205

<400> 9  
Ser Glu Ser Ser Gly Asn Asp Pro Phe Thr Ile Val His Glu Asn Thr  
1 5 10 15  
Gly Lys Cys

<210> 10  
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<212> PRT  
<213> mus musculus

<220>  
<223> predicted DEC-205

<400> 10  
Met Arg Thr Gly Arg Val Thr Pro Gly Leu Ala Ala Gly Leu Leu Leu  
1 5 10 15  
Leu Leu Leu Arg Ser Phe Gly Leu Val Glu Pro Ser Glu Ser Ser Gly  
20 25 30  
Asn Asp Pro Phe Thr Ile Val His Glu Asn Thr Gly Lys Cys Ile Gln  
35 40 45  
Pro Leu Ser Asp Trp Val Val Ala Gln Asp Cys Ser Gly Thr Asn Asn  
50 55 60  
Met Leu Trp Lys Trp Val Ser Gln His Arg Leu Phe His Leu Glu Ser  
65 70 75 80  
Gln Lys Cys Leu Gly Leu Asp Ile Thr Lys Ala Thr Asp Asn Leu Arg  
85 90 95  
Met Phe Ser Cys Asp Ser Thr Val Met Leu Trp Trp Lys Cys Glu His  
100 105 110  
His Ser Leu Tyr Thr Ala Ala Gln Tyr Arg Leu Ala Leu Lys Asp Gly  
115 120 125  
Tyr Ala Val Ala Asn Thr Asn Thr Ser Asp Val Trp Lys Lys Gly Gly  
130 135 140  
Ser Glu Glu Asn Leu Cys Ala Gln Pro Tyr His Glu Ile Tyr Thr Arg  
145 150 155 160  
Asp Gly Asn Ser Tyr Gly Arg Pro Cys Glu Phe Pro Phe Leu Ile Gly  
165 170 175  
Glu Thr Trp Tyr His Asp Cys Ile His Asp Glu Asp His Ser Gly Pro  
180 185 190  
Trp Cys Ala Thr Thr Leu Ser Tyr Glu Tyr Asp Gln Lys Trp Gly Ile  
195 200 205  
Cys Leu Leu Pro Glu Ser Gly Cys Glu Gly Asn Trp Glu Lys Asn Glu  
210 215 220  
Gln Ile Gly Ser Cys Tyr Gln Phe Asn Asn Gln Glu Ile Leu Ser Trp  
225 230 235 240  
Lys Glu Ala Tyr Val Ser Cys Gln Asn Gln Gly Ala Asp Leu Leu Ser  
245 250 255  
Ile His Ser Ala Ala Glu Leu Ala Tyr Ile Thr Gly Lys Glu Asp Ile  
260 265 270  
Ala Arg Leu Val Trp Leu Gly Leu Asn Gln Leu Tyr Ser Ala Arg Gly  
275 280 285  
Trp Glu Trp Ser Asp Phe Arg Pro Leu Lys Phe Leu Asn Trp Asp Pro  
290 295 300  
Gly Thr Pro Val Ala Pro Val Ile Gly Gly Ser Ser Cys Ala Arg Met  
305 310 315 320  
Asp Thr Glu Ser Gly Leu Trp Gln Ser Val Ser Cys Glu Ser Gln Gln

325	330	335
Pro Tyr Val Cys Lys Lys Pro Leu Asn Asn Thr Leu Glu	Leu Pro Asp	
340	345	350
Val Trp Thr Tyr Thr Asp Thr His Cys His Val Gly	Trp Leu Pro Asn	
355	360	365
Asn Gly Phe Cys Tyr Leu Leu Ala Asn Glu Ser	Ser Ser Trp Asp Ala	
370	375	380
Ala His Leu Lys Cys Lys Ala Phe Gly Ala Asp	Leu Ile Ser Met His	
385	390	400
Ser Leu Ala Asp Val Glu Val Val Thr Lys Leu His	Asn Gly Asp	
405	410	415
Val Lys Lys Glu Ile Trp Thr Gly Leu Lys Asn Thr	Asn Ser Pro Ala	
420	425	430
Leu Phe Gln Trp Ser Asp Gly Thr Glu Val Thr Leu	Thr Tyr Trp Asn	
435	440	445
Glu Asn Glu Pro Ser Val Pro Phe Asn Lys Thr	Pro Asn Cys Val Ser	
450	455	460
Tyr Leu Gly Lys Leu Gly Gln Trp Lys Val Gln	Ser Cys Glu Lys Lys	
465	470	475
Leu Arg Tyr Val Cys Lys Lys Gly Glu Ile Thr Lys	Asp Ala Glu	
485	490	495
Ser Asp Lys Leu Cys Pro Pro Asp Glu Gly	Trp Lys Arg His Gly Glu	
500	505	510
Thr Cys Tyr Lys Ile Tyr Glu Lys Glu Ala Pro	Phe Gly Thr Asn Cys	
515	520	525
Asn Leu Thr Ile Thr Ser Arg Phe Glu Gln	Glu Phe Leu Asn Tyr Met	
530	535	540
Met Lys Asn Tyr Asp Lys Ser Leu Arg Lys	Tyr Phe Trp Thr Gly Leu	
545	550	560
Arg Asp Pro Asp Ser Arg Gly Glu Tyr Ser	Trp Ala Val Ala Gln Gly	
565	570	575
Val Lys Gln Ala Val Thr Phe Ser Asn Trp Asn	Phe Leu Glu Pro Ala	
580	585	590
Ser Pro Gly Gly Cys Val Ala Met Ser Thr Gly	Lys Thr Leu Gly Lys	
595	600	605
Trp Glu Val Lys Asn Cys Arg Ser Phe Arg Ala	Leu Ser Ile Cys Lys	
610	615	620
Lys Val Ser Glu Pro Gln Glu Pro Glu Glu Ala	Ala Pro Lys Pro Asp	
625	630	640
Asp Pro Cys Pro Glu Gly Trp His Thr Phe	Pro Ser Ser Leu Ser Cys	
645	650	655
Tyr Lys Val Phe His Ile Glu Arg Ile Val Arg	Lys Arg Asn Trp Glu	
660	665	670
Glu Ala Glu Arg Phe Cys Gln Ala Leu Gly Ala	His Leu Pro Ser Phe	
675	680	685
Ser Arg Arg Glu Glu Ile Lys Asp Phe Val His	Leu Leu Lys Asp Gln	
690	695	700
Phe Ser Gly Gln Arg Trp Leu Trp Ile Gly	Leu Asn Lys Arg Ser Pro	
705	710	720
Asp Leu Gln Gly Ser Trp Gln Trp Ser Asp Arg	Thr Pro Val Ser Ala	
725	730	735
Val Met Met Glu Pro Glu Phe Gln Gln Asp	Phe Asp Ile Arg Asp Cys	
740	745	750
Ala Ala Ile Lys Val Leu Asp Val Pro Trp Arg	Arg Val Trp His Leu	
755	760	765
Tyr Glu Asp Lys Asp Tyr Ala Tyr Trp Lys Pro	Phe Ala Cys Asp Ala	
770	775	780
Lys Leu Glu Trp Val Cys Gln Ile Pro Lys Gly	Ser Thr Pro Gln Met	
785	790	800
Pro Asp Trp Tyr Asn Pro Glu Arg Thr Gly	Ile His Gly Pro Pro Val	
805	810	815
Ile Ile Glu Gly Ser Glu Tyr Trp Phe Val Ala	Asp Pro His Leu Asn	
820	825	830

Tyr Glu Glu Ala Val Leu Tyr Cys Ala Ser Asn His Ser Phe Leu Ala  
   835               840               845  
 Thr Ile Thr Ser Phe Thr Gly Leu Lys Ala Ile Lys Asn Lys Leu Ala  
   850               855               860  
 Asn Ile Ser Gly Glu Glu Gln Lys Trp Trp Val Lys Thr Ser Glu Asn  
   865               870               875               880  
 Pro Ile Asp Arg Tyr Phe Leu Gly Ser Arg Arg Arg Leu Trp His His  
   885               890               895  
 Phe Pro Met Thr Phe Gly Asp Glu Cys Leu His Met Ser Ala Lys Thr  
   900               905               910  
 Trp Leu Val Asp Leu Ser Lys Arg Ala Asp Cys Asn Ala Lys Leu Pro  
   915               920               925  
 Phe Ile Cys Glu Arg Tyr Asn Val Ser Ser Leu Glu Lys Tyr Ser Pro  
   930               935               940  
 Asp Pro Ala Ala Lys Val Gln Cys Thr Glu Lys Trp Ile Pro Phe Gln  
   945               950               955               960  
 Asn Lys Cys Phe Leu Lys Val Asn Ser Gly Pro Val Thr Phe Ser Gln  
   965               970               975  
 Ala Ser Gly Ile Cys His Ser Tyr Gly Gly Thr Leu Pro Ser Val Leu  
   980               985               990  
 Ser Arg Gly Glu Gln Asp Phe Ile Ile Ser Leu Leu Pro Glu Met Glu  
   995               1000              1005  
 Ala Ser Leu Trp Ile Gly Leu Arg Trp Thr Ala Tyr Glu Arg Ile Asn  
   1010              1015              1020  
 Arg Trp Thr Asp Asn Arg Glu Leu Thr Tyr Ser Asn Phe His Pro Leu  
   1025              1030              1035              1040  
 Leu Val Gly Arg Arg Leu Ser Ile Pro Thr Asn Phe Phe Asp Asp Glu  
   1045              1050              1055  
 Ser His Phe His Cys Ala Leu Ile Leu Asn Leu Lys Lys Ser Pro Leu  
   1060              1065              1070  
 Thr Gly Thr Trp Asn Phe Thr Ser Cys Ser Glu Arg His Ser Leu Ser  
   1075              1080              1085  
 Leu Cys Gln Lys Tyr Ser Glu Thr Glu Asp Gly Gln Pro Trp Glu Asn  
   1090              1095              1100  
 Thr Ser Lys Thr Val Lys Tyr Leu Asn Asn Leu Tyr Lys Ile Ile Ser  
   1105              1110              1115              1120  
 Lys Pro Leu Thr Trp His Gly Ala Leu Lys Glu Cys Met Lys Glu Lys  
   1125              1130              1135  
 Met Arg Leu Val Ser Ile Thr Asp Pro Tyr Gln Gln Ala Phe Leu Ala  
   1140              1145              1150  
 Val Gln Ala Thr Leu Arg Asn Ser Ser Phe Trp Ile Gly Leu Ser Ser  
   1155              1160              1165  
 Gln Asp Asp Glu Leu Asn Phe Gly Trp Ser Asp Gly Lys Arg Leu Gln  
   1170              1175              1180  
 Phe Ser Asn Trp Ala Gly Ser Asn Glu Gln Leu Asp Asp Cys Val Ile  
   1185              1190              1195              1200  
 Leu Asp Thr Asp Gly Phe Trp Lys Thr Ala Asp Cys Asp Asp Asn Gln  
   1205              1210              1215  
 Pro Gly Ala Ile Cys Tyr Tyr Pro Gly Asn Glu Thr Glu Glu Val  
   1220              1225              1230  
 Arg Ala Leu Asp Thr Ala Lys Cys Pro Ser Pro Val Gln Ser Thr Pro  
   1235              1240              1245  
 Trp Ile Pro Phe Gln Asn Ser Cys Tyr Asn Phe Met Ile Thr Asn Asn  
   1250              1255              1260  
 Arg His Lys Thr Val Thr Pro Glu Glu Val Gln Ser Thr Cys Glu Lys  
   1265              1270              1275              1280  
 Leu His Pro Lys Ala His Ser Leu Ser Ile Arg Asn Glu Glu Glu Asn  
   1285              1290              1295  
 Thr Phe Val Val Glu Gln Leu Leu Tyr Phe Asn Tyr Ile Ala Ser Trp  
   1300              1305              1310  
 Val Met Leu Gly Ile Thr Tyr Glu Asn Asn Ser Leu Met Trp Phe Asp  
   1315              1320              1325  
 Lys Thr Ala Leu Ser Tyr Thr His Trp Arg Thr Gly Arg Pro Thr Val

1330	1335	1340
Lys Asn Gly Lys Phe Leu Ala Gly Leu Ser Thr Asp Gly Phe Trp Asp		
1345	1350	1355
Ile Gln Ser Phe Asn Val Ile Glu Glu Thr Leu His Phe Tyr Gln His		1360
1365	1370	1375
Ser Ile Ser Ala Cys Lys Ile Glu Met Val Asp Tyr Glu Asp Lys His		
1380	1385	1390
Asn Gly Thr Leu Pro Gln Phe Ile Pro Tyr Lys Asp Gly Val Tyr Ser		
1395	1400	1405
Val Ile Gln Lys Lys Val Thr Trp Tyr Glu Ala Leu Asn Ala Cys Ser		
1410	1415	1420
Gln Ser Gly Gly Glu Leu Ala Ser Val His Asn Pro Asn Gly Lys Leu		
1425	1430	1435
Phe Leu Glu Asp Ile Val Asn Arg Asp Gly Phe Pro Leu Trp Val Gly		1440
1445	1450	1455
Leu Ser Ser His Asp Gly Ser Glu Ser Ser Phe Glu Trp Ser Asp Gly		
1460	1465	1470
Arg Ala Phe Asp Tyr Val Pro Trp Gln Ser Leu Gln Ser Pro Gly Asp		
1475	1480	1485
Cys Val Val Leu Tyr Pro Lys Gly Ile Trp Arg Arg Glu Lys Cys Leu		
1490	1495	1500
Ser Val Lys Asp Gly Ala Ile Cys Tyr Lys Pro Thr Lys Asp Lys Lys		
1505	1510	1515
Leu Ile Phe His Val Lys Ser Ser Lys Cys Pro Val Ala Lys Arg Asp		1520
1525	1530	1535
Gly Pro Gln Trp Val Gln Tyr Gly His Cys Tyr Ala Ser Asp Gln		
1540	1545	1550
Val Leu His Ser Phe Ser Glu Ala Lys Gln Val Cys Gln Glu Leu Asp		
1555	1560	1565
His Ser Ala Thr Val Val Thr Ile Ala Asp Glu Asn Glu Asn Lys Phe		
1570	1575	1580
Val Ser Arg Leu Met Arg Glu Asn Tyr Asn Ile Thr Met Arg Val Trp		
1585	1590	1595
Leu Gly Leu Ser Gln His Ser Leu Asp Gln Ser Trp Ser Trp Leu Asp		1600
1605	1610	1615
Gly Leu Asp Val Thr Phe Val Lys Trp Glu Asn Lys Thr Lys Asp Gly		
1620	1625	1630
Asp Gly Lys Cys Ser Ile Leu Ile Ala Ser Asn Glu Thr Trp Arg Lys		
1635	1640	1645
Val His Cys Ser Arg Gly Tyr Ala Arg Ala Val Cys Lys Ile Pro Leu		
1650	1655	1660
Ser Pro Asp Tyr Thr Gly Ile Ala Ile Leu Phe Ala Val Leu Cys Leu		
1665	1670	1675
Leu Gly Leu Ile Ser Leu Ala Ile Trp Phe Leu Leu Gln Arg Ser His		1680
1685	1690	1695
Ile Arg Trp Thr Gly Phe Ser Ser Val Arg Tyr Glu His Gly Thr Asn		
1700	1705	1710
Glu Asp Glu Val Met Leu Pro Ser Phe His Asp		
1715	1720	